

## CLAIMS

1. A method of treating weight loss due to underlying disease in a patient the method comprising administering to the patient an effective amount of an agent  
5 which reduces sympathetic nervous system activity and/or improves cardiovascular reflex status.

2. A method according to Claim 1 wherein the agent which reduces sympathetic nervous system activity is any one or more of the following: a  
10 compound which inhibits the effect of aldosterone such as an aldosterone antagonist; a chymase inhibitor; a cathepsin inhibitor; a  $\beta$  receptor blocker; an imidazoline receptor antagonist; a centrally acting  $\alpha$  receptor antagonist; a peripherally acting  $\alpha$  receptor antagonist; a ganglion blocking agent; a drug that has an effect on cardiovascular reflexes and thereby reduce SNS activity such as  
15 an opiate; scopolamine; endothelin receptor antagonist; a xanthine oxidase inhibitor; and erythropoietin.

3. A method of treating weight loss due to underlying disease in a patient the method comprising administering to the patient an effective amount of a  
20 compound which inhibits the effect of aldosterone, such as an aldosterone antagonist.

4. A method according to Claim 3 wherein the compound which inhibits the effect of aldosterone is any one of spironolactone, testolactone, RU40555,  
25 RU26752, canrenoate, eplerenone, 3-(17 $\beta$ -hydroxy-3-oxoandrosta-1,4,6,11-tetraen-17 $\alpha$ -yl) propionic acid  $\gamma$  lactone, 3-(9- $\alpha$ -fluoro-17 $\beta$ -hydroxy-3-oxoandrosta-4-en-17 $\alpha$ -yl) propionic acid  $\gamma$  lactone, dihydro-spirorenone, spirorenone, 15,16-methylene derivatives of spironolactone, mespirenone and SC9420.

5. A method of treating weight loss due to underlying disease in a patient the method comprising administering to the patient an effective amount of a chymase inhibitor.
- 5 6. A method according to Claim 5 wherein the chymase inhibitor is any one of alendronate, aprotinin and tissue inhibitors of matrix metalloproteinases.
7. A method of treating weight loss due to underlying disease in a patient the method comprising administering to the patient an effective amount of a cathepsin  
10 inhibitor.
8. A method according to Claim 7 wherein the cathepsin B inhibitor is any one of an epoxysuccinyl peptide such as CA-074 or E64-c, stefin A and cystatin C.
- 15 9. A method of treating weight loss due to underlying disease in a patient the method comprising administering to the patient an effective amount of a  $\beta$  receptor blocker.
10. A method according to Claim 9 wherein the  $\beta$  receptor blocker is any one  
20 of acebutolol, alprenolol, atenolol, betaxolol, bisoprolol, carteolol, celiprolol, esmolol, labetolol, lavobunolol, metipranolol, metoprolol, nadolol, oxprenolol, penbutolol, pindolol, propanolol, sotalol, timolol, nebivolol, carvedilol and bucindolol.
- 25 11. A method of treating weight loss due to underlying disease in a patient the method comprising administering to the patient an effective amount of an imidazoline receptor antagonist.
12. A method according to Claim 11 wherein the imidazoline receptor  
30 antagonist is any one of moxonidine, rilmenidine, pentamidine and  $\alpha$ -methyl dopa.

13. A method of treating weight loss due to underlying disease in a patient the method comprising administering to the patient an effective amount of a centrally acting  $\alpha$  receptor agonist.
- 5 14. A method according to Claim 13 wherein the centrally acting  $\alpha$  receptor agonist is clonidine.
15. A method of treating weight loss due to underlying disease in a patient the method comprising administering to the patient an effective amount of a  
10 peripherally acting  $\alpha$  receptor antagonist.
16. A method according to Claim 15 wherein the peripherally acting  $\alpha$  receptor antagonist is any one of doxazosin, prazosin, terazosin and ipsapirone.
- 15 17. A method of treating weight loss due to underlying disease in a patient the method comprising administering to the patient an effective amount of a ganglion blocking agent.
18. A method according to Claim 17 wherein the ganglion blocking agent is  
20 any one of azamethonium, dicolinium, hexamethonium, mecamlamine, pentamethonium, pentolinium, trimetaphan, benzohexonium, hexafluorenium, cypenam, trimethaphan canfosulfonate, tetraethylammonium bromide and synapleg.
- 25 19. A method of treating weight loss due to underlying disease in a patient the method comprising administering to the patient an effective amount of a drug that has an effect on cardiovascular reflexes and thereby reduces SNS activity.
20. A method of treating weight loss due to underlying disease in a patient the  
30 method comprising administering to the patient an effective amount of an opiate.

21. A method according to Claim 20 wherein the opiate is any one of dihydrocodeine, morphine, diamorphine and buprenorphine.
22. A method of treating weight loss due to underlying disease in a patient the  
5 method comprising administering to the patient an effective amount of scopolamine.
23. A method of treating weight loss due to underlying disease in a patient the  
method comprising administering to the patient an effective amount of an  
10 endothelin receptor antagonist.
24. A method according to Claim 23 wherein the ET-1 receptor antagonist is  
any one of butenolide, BQ123, BQ-788, A-216546, ABT-627, IRL3461,  
LU135252, S-0139, T-0201, PD 142,893, PD 164333, RO 61-1790, PD 156,707,  
15 SB 209670, IRL 1038 and WS-7338 B.
25. A method of treating weight loss due to underlying disease in a patient the  
method comprising administering to the patient an effective amount of a xanthine  
oxidase inhibitor.  
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26. A method according to Claim 25 wherein the xanthine oxidase inhibitor is  
any one of allopurinol, 7,8-dihydroneopterin, 5,6,7,8-tetrahydrobiopterin,  
leukopterin, xanthopterin, neopterin, biopterin, 4-amino-6-hydroxypyrazolo[3,4-  
d]pyrimidine (AHPP) and oxypurinol.  
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27. A method of treating weight loss due to underlying disease in a patient the  
method comprising administering to the patient an effective amount of  
erythropoietin.
- 30 28. A method of treating weight loss due to underlying disease in a patient the  
method comprising electrically stimulating the patient's muscles.

29. A method according to any one of the preceding claims wherein the underlying disease is any one of AIDS, liver cirrhosis, chronic obstructive pulmonary disease with or without emphysema, chronic renal failure, chronic infections, cancer, heart disease including hypertension and chronic heart failure.
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30. A method according to any one of Claims 1 to 29 wherein the patient has idiopathic cachexia.
31. A method according to any one of Claims 1 to 29 wherein the underlying
- 10 disease is chronic heart failure and the patient has cardiac cachexia.
32. Use of a compound as defined in any one of Claims 1 to 36 in the manufacture of a medicament for treating weight loss due to underlying disease.
- 15 33. Use according to Claim 32 wherein the underlying disease is as defined in Claim 28.
34. Use of a compound as defined in any one of Claims 1 to 36 in the manufacture of a medicament for treating idiopathic cachexia.
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35. A method of treating or preventing weight loss due to the ageing process in a patient the method comprising administering to the patient an effective amount of an agent which reduces sympathetic nervous system activity.
- 25 36. A method of treating or preventing weight loss due to the ageing process in a patient the method comprising administering to the patient an effective amount of any one or more of a compound which inhibits the effect of aldosterone such as an aldosterone antagonist; a chymase inhibitor; a cathepsin inhibitor; a  $\beta$  receptor blocker; an imidazoline receptor antagonist; a centrally acting  $\alpha$  receptor
- 30 antagonist; a peripherally acting  $\alpha$  receptor antagonist; a ganglion blocking agent; a drug that has an effect on cardiovascular reflexes and thereby reduce SNS

activity such as an opiate, a digitalis alkaloid, scopolamine; an endothelin receptor antagonist; a xanthine oxidase inhibitor; and erythropoietin.

37. A method of treating or preventing weight loss due to the ageing process in  
5 a patient the method comprising electrically stimulating the patient's muscles.

38. A method of enhancing exercise performance in a healthy patient the  
method comprising administering to the individual an effective amount of an agent  
which reduces sympathetic nervous system activity.

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39. A method of enhancing exercise performance in a healthy individual the  
method comprising administering the individual an effective amount of any one or  
more of a compound which inhibits the effect of aldosterone such as an  
aldosterone antagonist; a chymase inhibitor; a cathepsin inhibitor; a  $\beta$  receptor  
15 blocker; an imidazoline receptor antagonist; a centrally acting  $\alpha$  receptor  
antagonist; a peripherally acting  $\alpha$  receptor antagonist; a ganglion blocking agent;  
a drug that has an effect on cardiovascular reflexes and thereby reduce SNS  
activity such as an opiate; a digitalis alkaloid; scopolamine; an anabolic growth  
factor like growth hormone and insulin-like growth factor-I (IGF-I); an endothelin  
20 receptor antagonist; a  $\text{TNF}\alpha$  antagonist; a xanthine oxidase inhibitor; and  
erythropoietin.

40. A method of enhancing exercise performance in a healthy patient the  
method comprising electrically stimulating the patient's muscles.

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41. A method of preventing weight loss consequent to a cardiovascular  
disorder in a patient at risk of heart disease the method comprising administering  
to the patient an effective amount of any one or more of a compound with an  
inhibiting effect on aldosterone; a  $\beta$ -receptor blocker; an imidazoline receptor  
30 antagonist; a centrally acting  $\alpha$  receptor agonist; a peripherally acting  $\alpha$  receptor  
antagonist; and a ganglion blocking agent.

42. Use of a compound as defined in Claim 35 or 36 in the manufacture of a medicament for treating or preventing weight loss due to ageing in a patient.
- 5 43. Use of a compound as defined in Claim 38 or 39 in the manufacture of an agent for enhancing exercise performance in a healthy individual.